



001560-387.ST25

## SEQUENCE LISTING

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<110> Sakakibara, Keiko  
Fukui, Yuko  
Tanaka, Yoshikazu  
Kasumi, Takaaki  
Yoshikawa, Takafumi

<120> Genes Encoding Protein Having Activity of Transferring Sugar Onto Aurone

<130> 001560-387

<140> US 09/673,300

<141> 2000-10-16

<150> PCT/JP00/00876

<151> 2000-02-16

<150> JP 11-036801

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<170> PatentIn version 3.0

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Ala His Gly His Met Ile Pro Met Leu Asp Met Ala Lys Leu Phe Thr  
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Ser Arg Gly Ile Gln Thr Thr Ile Ile Ser Thr Leu Ala Phe Ala Asp  
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Ala Arg Asp Ser Gly Leu Asp Ile Gly Leu Ser Ile Leu Lys Phe Pro	
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Pro Glu Gly Ser Gly Ile Pro Asp His Met Val Ser Leu Asp Leu Val	
65	70 75 80

Thr Glu Asp Trp Leu Pro Lys Phe Val Glu Ser Leu Val Leu Leu Gln	
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Glu Pro Val Glu Lys Leu Ile Glu Glu Leu Lys Leu Asp Cys Leu Val	
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Ser Asp Met Phe Leu Pro Trp Thr Val Asp Cys Ala Ala Lys Phe Gly	
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Ile Pro Arg Leu Val Phe His Gly Thr Ser Asn Phe Ala Leu Cys Ala	
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Arg Thr Gln Val Ala Pro Phe Gln Leu Ala Glu Thr Glu Asn Gly Phe  
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Ser Lys Leu Met Lys Gln Met Thr Glu Ser Val Gly Arg Ser Tyr Gly  
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Val Val Val Asn Ser Phe Tyr Glu Leu Glu Ser Thr Tyr Val Asp Tyr  
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Tyr Arg Glu Val Leu Gly Arg Lys Ser Trp Asn Ile Gly Pro Leu Leu  
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Ala Ile Gly Glu His Glu Cys Leu Ala Trp Leu Asn Ser Lys Lys Gln  
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Asn Ser Val Val Tyr Val Cys Phe Gly Ser Met Ala Thr Phe Thr Pro  
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Phe Ile Trp Val Val Lys Lys Ala Lys Asn Glu Glu Glu Gly Lys Gly  
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Gly Leu Ile Ile Arg Gly Trp Ala Pro Gln Leu Leu Ile Leu Asp His  
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Glu Gln Phe Phe Asn Glu Lys Phe Val Thr Glu Val Leu Gly Thr Gly

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ccc atg att gac atc gca cgc cta ttg gca caa cgc gga gtt ata atc  
Pro Met Ile Asp Ile Ala Arg Leu Leu Ala Gln Arg Gly Val Ile Ile  
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Gln Arg Gly Val Ile Ile Thr Ile Leu Thr Thr His Phe Asn Ala Thr  
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Arg Phe Lys Thr Val Val Asp Arg Ala Val Val Ala Ala Leu Lys Ile  
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Gln Val Val His Leu Tyr Phe Pro Ser Leu Glu Ala Gly Leu Pro Glu  
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Gly Cys Glu Ala Phe Asp Met Leu Pro Ser Met Asp Phe Ala Met Lys  
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Phe Phe Asp Ala Thr Ser Arg Leu Gln Pro Gln Val Glu Met Leu  
100 105 110

His Glu Leu Gln Pro Ser Pro Ser Cys Ile Ile Ser Asp Met Cys Phe  
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Pro Trp Thr Thr Asn Val Ala Gln Lys Phe Asn Ile Pro Arg Leu Val  
130 135 140

Phe His Gly Met Cys Cys Phe Ser Leu Leu Cys Leu His Asn Leu Arg  
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Asp Trp Lys Glu Leu Glu Ser Asp Ile Glu Tyr Phe Gln Val Pro Gly  
165 170 175

Leu His Asp Lys Ile Glu Leu Asn Lys Ala Gln Leu Ser Asn Ile Val  
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Lys Pro Arg Gly Pro Asp Trp Asn Glu Phe Ala Asp Gln Leu Lys Lys  
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Ala Glu Glu Glu Ala Tyr Gly Ile Val Ala Asn Ser Phe Glu Glu Leu  
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Glu Pro Glu Tyr Val Lys Gly Leu Glu Lys Ala Lys Gly Leu Lys Ile  
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Ala Glu Arg Gly Asn Lys Ala Ser Ile Asp Glu His Gln Cys Leu Lys  
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Leu Glu Ser Ser Lys Arg Pro Phe Ile Trp Val Val Arg His Lys Ser  
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Asp Glu Phe Lys Ser Trp Leu Val Glu Glu Asn Phe Glu Glu Arg Val  
325 330 335

Lys Gly Gln Gly Leu Leu Ile His Gly Trp Ala Pro Gln Val Leu Ile  
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Leu Ser His Thr Ser Ile Gly Gly Phe Leu Thr His Cys Gly Trp Asn  
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Ser Ser Val Glu Gly Ile Ser Ala Gly Val Pro Met Ile Thr Trp Pro  
370 375 380

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425

430

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&lt;223&gt; Amino acid sequence coding of a protein having glycosyl transferase to aurone

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Gln	Ala	Val	Glu	Asn	Gly	Leu	Pro	Glu	Gly	Cys	Glu	Arg	Ile	Asp	Leu
65			70					75				80			

Ile	Pro	Ser	Asp	Asp	Lys	Leu	Ser	Asn	Phe	Leu	Lys	Ala	Ala	Ala	Met
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Met	Gln	Glu	Pro	Leu	Glu	Gln	Leu	Ile	Glu	Glu	Cys	His	Pro	Asn	Cys
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Leu	Val	Ser	Asp	Met	Phe	Leu	Pro	Trp	Thr	Thr	Asp	Thr	Ala	Ala	Lys
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Phe	Asn	Ile	Pro	Arg	Ile	Val	Phe	His	Gly	Thr	Ser	Phe	Phe	Ala	Leu
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Cys	Val	Glu	Asn	Ser	Asn	Arg	Thr	Asn	Lys	Pro	Phe	Lys	Asn	Val	Ser
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Ser	Asp	Ser	Glu	Thr	Phe	Val	Val	Pro	Asn	Leu	Pro	His	Glu	Ile	Arg
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Leu	Thr	Arg	Thr	Gln	Leu	Ser	Pro	Phe	Glu	Gln	Ser	Leu	Glu	Glu	Thr
	180				185				190						

Pro	Met	Ser	Arg	Met	Ile	Lys	Ala	Val	Arg	Glu	Ser	Asp	Ala	Lys	Ser
	195				200				205						

Tyr Gly Val Ile Phe Asn Ser Phe Tyr Glu Leu Glu Ser Asp Tyr Val  
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Glu His Tyr Thr Lys Val Leu Gly Arg Lys Ser Trp Ala Ile Gly Pro  
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Leu Ser Leu Cys Asn Arg Asp Ile Glu Asp Lys Ala Glu Arg Gly Lys  
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Ile Ser Ser Ile Asp Lys His Glu Cys Leu Asn Trp Leu Asp Ser Lys  
260 265 270

Lys Pro Ser Ser Ile Val Tyr Val Cys Phe Gly Ser Val Ala Asp Phe  
275 280 285

Thr Ala Ala Gln Met Arg Glu Leu Ala Leu Gly Ile Glu Ala Ser Gly  
290 295 300

Gln Glu Phe Ile Trp Ala Val Arg Arg Gly Lys Glu Glu Gln Asp Asn  
305 310 315 320

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Glu Glu Trp Leu Pro Glu Gly Phe Glu Glu Arg Thr Lys Glu Lys Gly  
325 330 335

Leu Ile Ile Arg Gly Trp Ala Pro Gln Val Leu Ile Leu Asp His Gln  
340 345 350

Ala Val Gly Ala Phe Val Thr His Cys Gly Trp Asn Ser Thr Leu Glu  
355 360 365

Gly Val Ser Ala Gly Val Pro Met Val Thr Trp Pro Val Phe Ala Glu  
370 375 380

Gln Phe Phe Asn Glu Lys Leu Val Thr Glu Val Leu Arg Thr Gly Ala  
385 390 395 400

Gly Val Gly Ser Met Gln Trp Lys Arg Ser Ala Ser Glu Gly Val Lys  
405 410 415

Arg Glu Ala Ile Ala Lys Ala Ile Lys Arg Val Met Val Ser Glu Glu  
420 425 430

Ala Glu Gly Phe Arg Asn Arg Ala Lys Ala Tyr Lys Glu Met Ala Lys

435

440

445

Gln Ala Ile Glu Glu Gly Gly Ser Ser Tyr Ser Gly Leu Thr Thr Leu  
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Leu Gln Asp Ile Ser Thr Tyr Ser Ser Lys Ser His  
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